

CIVIL ENGINEER

DEFINITION: Under general direction, performs a range of conventional engineering duties of moderate difficulty related to a civil engineering environment requiring independent judgment and resourcefulness; assignments are reviewed by a Professional Engineer for technical accuracy and compliance with established policies, standards and codes; performs related work as assigned.

ESSENTIAL FUNCTIONS: This list is ILLUSTRATIVE ONLY and is not a comprehensive listing of all functions and tasks performed by incumbents of this class.

TASKS:

Examines, measures, studies, investigates and analyzes such elements associated with hydrology, geology, mineral and water rights, natural resources, transportation and utility systems, residential and commercial use of land and water, environmental and related characteristics; carries out engineering projects without technical guidance or instruction; where critical engineering problems occur or deviate from established guidelines obtains supervisory guidance and/or solution.

Carries out public work projects that are predetermined, planned and designed by higher level engineers or upper level management staff; coordinates and schedules work projects; designs and develops plans or scope of work; performs reconnaissance of site and performs surveys; studies data on natural resources and all pertinent characteristics; estimates engineering cost involving investigation, survey, planning and designing, construction materials, equipment, monitoring and overhead expenses; seeks assistance from higher level engineering authority in responding and resolving unprecedented engineering problems.

Develops contracts for proposed construction projects; develops competitive bidding cost estimates; attends pre-bid and pre-construction conferences; inspects materials and methods used for compliance with approved designs and specifications; monitors progress of construction operation; resolves noncompliance subject matters; recommends corrective measures where changes become necessary; interprets and applies federal and state regulations and guidelines; completes final approval and acceptance of construction work.

KNOWLEDGE, SKILLS AND OTHER CHARACTERISTICS:

Knowledge of the principles, practices and techniques applied in civil engineering to sufficiently address and reconcile engineering concerns that are repetitive.

Knowledge in developing engineering plans, scope of work, and design specifications for conventional or for small engineering projects consisting of multiple phases.

Knowledge of methods applied in coordinating, managing, scheduling and controlling multiple phases of construction projects.

Knowledge and understanding of federal and state agency roles, goals, objectives and jurisdiction as they relate to the control and management of engineering projects on lands owned by the Navajo Nation.

Knowledge of and understanding of economics as related to planning, designing and construction practices.

Knowledge of the application of engineering research and study methods.

Knowledge of computer hardware, software and peripherals.

Skill in scheduling, inspecting and providing surveillance of methods and equipment used in construction.

Skill in establishing and maintaining effective working relationships with professional engineers, government agencies and the general public.

Ability to enforce, comply and assure safety standards and health regulations.

Ability to resolve engineering problems through mathematical formulas and calculations.

CIVIL ENGINEER

PHYSICAL REQUIREMENTS AND WORK ENVIRONMENT: Work requires attention to detail with potential exposure to loud noises, dust, toxic chemicals and fumes when working on site.

MINIMUM QUALIFICATIONS:

- A Bachelor's degree in Civil Engineering or related engineering field; and two (2) years responsible work experience as a Civil Engineer and/or related work in public infrastructure construction.

Special Requirements:

- Possess a valid state driver's license.

PREFERRED QUALIFICATIONS:

- Two (2) years of experience in survey, civil engineer design and plans and project and construction management, cost estimating equipment and safety.
- Proficient in the use of surveying, civil engineering software/hardware applications.
- Possess an Engineer in Training (EIT) certificate.

Supplemental Requirements:

Incumbent must obtain a Navajo Nation Vehicle Operator's Permit within 90 days of date of hire.

Depending upon the needs of the Nation, some incumbents of the class may be required to demonstrate fluency in both the Navajo and English languages as a condition of employment.